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ORGANIZATION OF MENTAL ARITHMETIC COURSES FOR PRIMARY SCHOOL STUDENTS

Abstract: *The article describes the issues of further development of interest in the subject of methematics in primary school students, as well as the issues dedicated to the strengthening of knowledge on mental arithmetic in them. The history of mental arithmetic, its riveting and its importance to schoolchildren at present, were analyzed through several examples. New methods aimed at teaching the students to the calculation were thoroughly investigated.*

Key words: *Japan, mental arithmetic, elementary school, numbers, sum.*
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Introduction

"To all of us, as clear and clear as the sun, school is the beginning of progress, the gateway to culture and bliss. Every nation first entered the path of development until the school reaches the genesis and multiplies it by the use of modern culture by the word "education and schooling"[1], the progressive scholar Makhmudkhuja Bekhbudiy showed to the contemporary youth that the position of the school in the life of society, in the development of culture, is incomparable.

In the organization of educational processes, pre-school education and primary education play an important role. It is an important task of representatives of the primary education sector to get interested in these directions of education from an early age so that the growing younger generation can grow into a mature specialist of a particular field of his choice in the future.

In schools, it is aimed to increase the consciousness and subconscious activities of students who come to the primary school, strengthen memory, organize mental arithmetic courses in order to arouse interest in specific sciences[2].

At this age, the child's brain activity works very quickly, he can easily store information in his memory. At the same time, children are interested in the field of mathematics, it is possible to easily develop in them the ability to quickly calculate[3].

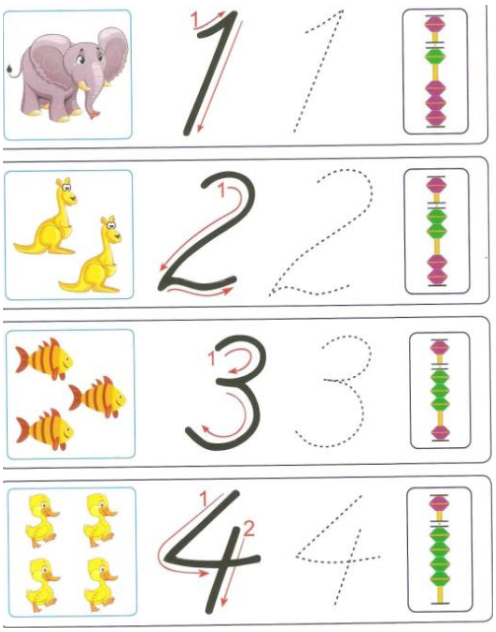
What is Mental arithmetic itself? Mental arithmetic as a science appeared in Japan two thousand years ago. This method is thought out in order to develop both hemispheres of the brain. As a result of the fact that children are engaged in a certain methodology, their memory is strengthened, their attention is increased, various mathematical calculations in the mind are carried out at a rapid pace, which even led to the admiration of scientists[4].

Mental arithmetic is a unique program that allows the development of human and creative activity. Through this, it becomes easier to perform special calculations in the brain. Due to the fact that the age of education in this method is determined from the age of 4 to 16 years, at the same time, the adoption of children in schools from the age of 7 years and at

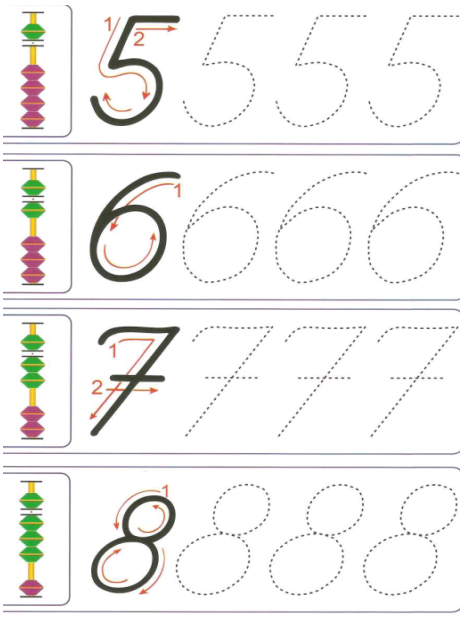
the same time the initial concepts of mental arithmetic is a proof of the purposefulness of the organization of these courses in the Today this method is used in 52 countries of the world.

Through the mastering of this arithmetic in the primary classes, the ability to think creatively develops in students, they learn to consciously find the only true solution in voluntary problematic situations. Such classes are conducted by children interacting with each other, dancing and singing, etc., and as a result of this, there is a constant development of both hemispheres of the brain[5].

At school, such elements as signs, letters, numbers are taught initially for pupils of the 1st grade. Exactly within the science of mathematics, students are taught how to write numbers, apply them, add on numbers and subtract vs subtraction actions. Therefore, in the 1st grade, students are introduced to the basic concepts of the course of mental arithmetic, initially to form numbers with the help of Abacus, to tell how many is the number indicated in Abacus, etc., gradually introducing the following[6]

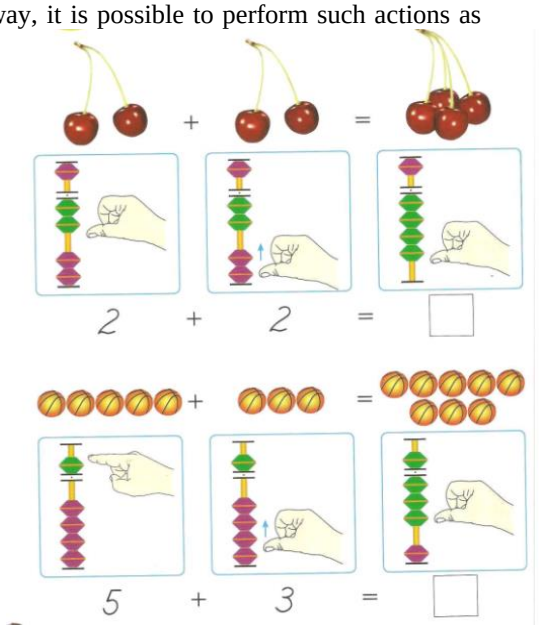


1st picture.



2nd picture.

After studying the location of the numbers in such a way, it is possible to perform such actions as addition, subtraction on the numbers to the students with the help of Abacus in the following way[7]:



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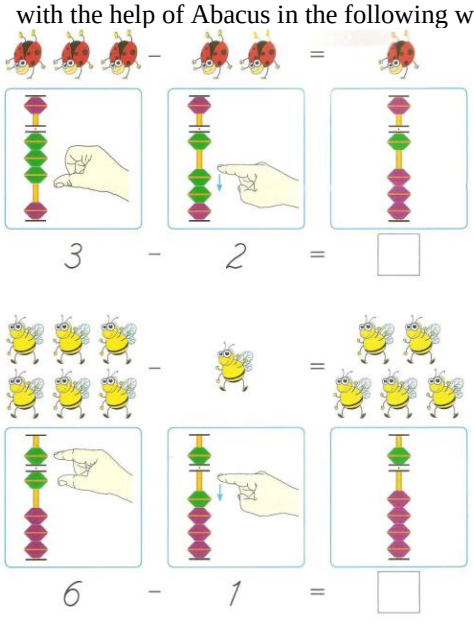

4th picture.

As students learn to add and subtract large numbers on Abacus while passing 2nd grade, the brain is taught to calculate quickly by performing various other exercises during the calculation, including addition. For example, a reader can count and dance, perform physical exercises, or perform a variety of games at the same time.

And in the 3rd grade, now the pupil will be much more adapted to the work of both cerebral hemispheres. Now at this age, students can easily memorize the multiplication table. They can also perform through a variety of play sessions while performing the act of multiplying on numbers[8].

In the 4th grade, the student will have almost much more knowledge on the course of mental arithmetic. With schoolchildren at this age it is now worthwhile to perform the act of multiplying on large numbers. To do this, they are taught the rules of law when multiplying a certain number of large numbers. After conscious application of the same laws in practice, students will be able to develop a law for themselves in the performance of actions on voluntary numbers. Below, let's get acquainted with the rules for multiplying two-digit numbers[9].

1 When multiplying the number 11 by two-digit numbers, the following rule can be applied:

$$32 \times 11 = 352 \rightarrow 5 = 3 + 2$$
$$53 \times 11 = 583 \rightarrow 8 = 5 + 3$$

When multiplying two-digit numbers whose sum does not exceed 9 by 11, it is possible to use the rule as above, that is, to form a multiplication by writing their sum between the numbers participating in a two-digit number. But we can not apply this rule for numbers in which the sum of the numbers turns out to be higher than 9.

$$85 \times 11 = 8135 \rightarrow 13 = 8 + 5$$

according to the above rule, the result should have been so. But the answer is not multiplicity. To do this, we use the following method. That is, if the sum of the digits of the number does not come out one-digit, then we make a multiplication by adding its decimal number to the number in the large cell of the two-digit number:

$$85 \times 11 = 935 \rightarrow 13 = 8 + 5\,; 9 = 8 + 1$$

2. Calculation of squares of two-digit numbers that end with a number:

```
   35          85
  ×35         ×85
3×4=12      8×9=72
5×5=  25    5×5=  25
 1225        7225
```

As can be seen from the above rule, the last two digits of the multiplication formed when calculating the square of a two-digit number are always 25, and the remaining digits are equal to the number formed from multiplying the number in the decimal place of a given two-digit number by a number greater than 1 unit from itself.

3. The sum of the numbers of the given different two-digit numbers in one room is equal to 10, and the numbers in the room of the tens are equal to each other[10].

```
   83          26
  ×87         ×24
8×9=72      2×3=6
3×7=  21    6×4=  24
 7221        624
```

Hence, the last two digits of the multiplication of these numbers are equal to the multiplication of the numbers in the unit cell of the given numbers, and the remaining digits are equal to the number generated from multiplying the number in the decimal point of the given number by itself 1 unit large number.

In such a sequence, by gradually teaching readers to do calculations, at the same time in them independently develops photographic memory and creative thinking skills, is able to concentrate a high level of attention.

And this, in turn, will help to quickly master other sciences, as well as mathematics, to keep in memory a certain rule of law.

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